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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/799,860	03/12/2004	Vipul V. Prakash	2710.007US1	1747

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MINNEAPOLIS, MN 55402

EXAMINER
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SWEARINGEN, JEFFREY R

ART UNIT	PAPER NUMBER
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2445

NOTIFICATION DATE	DELIVERY MODE
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07/21/2011

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

uspto@slwip.com  
request@slwip.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/799,860	<b>Applicant(s)</b> PRAKASH, VIPUL V.	
	<b>Examiner</b> Jeffrey R. Swearingen	<b>Art Unit</b> 2445	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 May 2011.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 13-20 is/are rejected.
- 7) ☒ Claim(s) 12 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 5/26/2011 has been entered.

### ***Information Disclosure Statement***

2. The information disclosure statement filed 5/26/2011 fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent, publication, or other information listed that is not in the English language. It has been placed in the application file, but the information referred to therein has not been considered. The Foreign Patent Documents and the Japanese Office Actions have been considered. However, the "Addressing Spam mail" article listed on the information disclosure statement has no English translation, and no statement is given of the relevance of this document.

***Allowable Subject Matter***

3. The indicated allowability of claims 1-20 is withdrawn in view of the newly discovered reference(s) to Milliken, Goodman and Knowles. Rejections based on the newly cited reference(s) follow.

4. Claim 12 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Claim Objections***

5. Claims 11-14 are objected to because of the following informalities: Claims 11-14 depend from claim 10. Claim 10 was amended to a non-transitory computer-readable storage medium. Claims 11-14 disclose the computer-readable storage medium of claim 10. Claims 11-14 should be amended to add “non-transitory” for purposes of clarity and consistency with claim 10. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1, 2, 4-6, 10, and 14-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. Claims 1, 2, 4-6, 10, and 14-16 refer to URLs, but fail to define what the URL abbreviation stands for within the claims. Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1-11 and 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Milliken et al. (US 2004/0073617) in view of Goodman et al. (US 7,711,779).

11. In regard to claim 1, Goodman disclosed a method comprising:

using one or more computer processors, extracting URLs from electronic communication; and (column 7, lines 56-63, identifying a spam message based upon the presence of a URL)

analyzing the URLs extracted to determine whether the electronic communication is of a first predetermined category, (column 7, lines 56-63)

Goodman disclosed extracting URLs from electronic communications. Goodman disclosed determining whether a email is spam based upon the presence or absence of a URL. Goodman failed to disclose the step of generating signatures or hash values based upon the content of the email message.

However, Milliken disclosed generating signatures or hash values based upon the content of the email message (using a length of the electronic communication and the URLs extracted). Milliken, [0050], where one or more portions of a received email

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are hashed to produce a hash value. Any portion of the main text, or attachments may be hashed. The hash acts as a signature in [0052].

It would have been obvious to one of ordinary skill in the art at the time of invention to incorporate the hashing of an email to determine whether the email constituted spam, into the Goodman system which used the presence or absence of URLs to determine whether an email constituted spam, in order to build a more robust spam prevention system.

12. In regard to claim 2, Goodman disclosed the method of claim 1, wherein extracting the URLs comprises extracting at least one of a hostname, a domain name, a subsection of a domain relative link, and an Internet Protocol (IP) address from the electronic communication. Goodman, col. 7, lines 58-63 and col. 13, lines 45-53. The elements of at least one of a hostname, a domain name, a subsection of a domain relative link, and an Internet Protocol (IP) address are inherently part of the URL as disclosed in Goodman

13. In regard to claim 3, Milliken disclosed the method of claim 1, further comprising performing a predetermined operation on the electronic communication if the electronic communication is determined to be of the first predetermined category. [0080], rejecting message if suspicion score is high enough

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14. In regard to claim 4, Milliken disclosed the method of claim 1, wherein analyzing the URLs comprises:

selecting one or more of the one or more signatures generated; and [0054],  
storing of hash values

comparing the selected signatures against a plurality of predetermined signatures generated from a plurality of known electronic communications of the first predetermined category. [0082], checking hashed portions of a message with known email lists which have been hashed

15. In regard to claim 5, Milliken disclosed the method of claim 1, wherein generating the one or more signatures further comprises:

computing a first hash based on the length of the electronic communication;  
computing a second hash ...; and generating a signature by concatenating the first hash to the second hash. Milliken disclosed hashing portions of an email, [0050]. A fixed length of a hash is established in [0055]. Concatenating hashes is taught in [0086].

16. Milliken failed to disclose an extracted URL was hashed.

17. However, Goodman disclosed using the presence of a URL within an email to determine whether an email was spam. Goodman, col. 7, lines 58-63 and col. 13, lines 45-53

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18. It would have been obvious to one of ordinary skill in the art at the time of invention that because Goodman detected whether an email was spam based upon the presence of a URL, and because therefore a URL would have been part of an email in Goodman, and because Milliken disclosed any portion of an email may be hashed, that a URL that was part of an email in Milliken would have been hashed.

19. In regard to claim 6, Milliken disclosed the method of claim 4. Milliken, [0050], hashing one or more portions of a received email. Milliken failed to disclose an extracted URL was hashed.

20. However, Goodman disclosed using the presence of a URL within an email to determine whether an email was spam. Goodman, col. 7, lines 58-63 and col. 13, lines 45-53

21. It would have been obvious to one of ordinary skill in the art at the time of invention that because Goodman detected whether an email was spam based upon the presence of a URL, and because therefore a URL would have been part of an email in Goodman, and because Milliken disclosed any portion of an email may be hashed, that a URL that was part of an email in Milliken would have been hashed.

22. In regard to claim 7, Milliken disclosed the method of claim 4, wherein generating the one or more signatures further comprises generating the one or more signatures based on at least one of a protocol, a hostname, a domain name, a subsection of a domain relative link, and an Internet Protocol (IP) address from the electronic communication. Milliken, [0096], hashing specific headers from an email separately, such as the use of Yahoo Groups



In regard to claim 8, Milliken disclosed the method of claim 4, further comprising classifying the electronic communication to be of the first predetermined category if one of the selected signatures matches one of the plurality of predetermined signatures.

[0082], checking hashed portions of a message with known email lists which have been hashed

23. In regard to claim 9, Milliken disclosed the method of claim 4, wherein the plurality of predetermined signatures is derived from a plurality of electronic documents reported via a collaborative submission mechanism. Milliken, [0061], preloading of hashes from “legitimate email list servers”

24. In regard to claim 10, Milliken disclosed a non-transitory computer-readable storage medium that provides instructions that, if executed by a processor, will cause the processor to perform operations comprising:

generating one or more signatures of electronic communication using a length of the electronic communication...; and Milliken, [0050], where one or more portions of a received email are hashed to produce a hash value. Any portion of the main text, or attachments may be hashed. The hash acts as a signature in [0052].

determining whether the electronic communication is of a first predetermined category using the one or more signatures generated. Milliken, [0082], checking hashed portions of a message with known email lists which have been hashed to determine if a message is spam or suspicious.

Milliken failed to disclose hashing the URL extracted from a message.

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25. However, Goodman disclosed using the presence of a URL within an email to determine whether an email was spam. Goodman, col. 7, lines 58-63 and col. 13, lines 45-53

26. It would have been obvious to one of ordinary skill in the art at the time of invention that because Goodman detected whether an email was spam based upon the presence of a URL, and because therefore a URL would have been part of an email in Goodman, and because Milliken disclosed any portion of an email may be hashed, that a URL that was part of an email in Milliken would have been hashed.

27. In regard to claim 11, Milliken disclosed the computer-readable storage medium of claim 10, wherein determining whether the electronic communication is of the first predetermined category comprises:

selecting one or more of the one or more signatures generated based on a plurality of predetermined criteria; [0068], hash the main text of the body and [0070], hash the attachments of the email. Also see [0050]. The use of hash blocks in [0050] is selecting a signature generated based on a plurality of predetermined criteria.

comparing the selected signatures against a plurality of predetermined signatures; and [0082], comparing hashes with previously received hashes

classifying the electronic communication to be of the first predetermined category if one of the selected signatures matches one of the plurality of predetermined signatures. [0082]

28. In regard to claim 13, Milliken disclosed the computer-readable storage medium of claim 11, wherein selecting one or more of the one or more signatures generated

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comprises selecting signatures representing one or more of a protocol, a hostname, a domain name, and a subsection of a domain relative link having a predetermined string of letters. Milliken, [0096], hashing specific headers from an email separately, such as the use of Yahoo Groups

29. In regard to claim 14, Goodman disclosed the computer-readable storage medium of claim 10, wherein the operations further comprise extracting the URLs from the electronic communication. (column 7, lines 56-63, identifying a spam message based upon the presence of a URL)

30. Claims 15-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Milliken in view of Goodman in view of Knowles et al. (US 5,905,863).

31. In regard to claim 15, Milliken disclosed a system comprising:  
a server, coupled to the plurality of databases, including: server 120, [0035]  
a memory device to store a plurality of instructions; and  
a processor, coupled to the memory device, to retrieve the plurality of instructions from the memory device and to perform operations in response to the plurality of instructions, the operations comprising:  
generating one or more signatures of electronic communication  
using a length of the electronic communication...; and Milliken, [0050],  
where one or more portions of a received email are hashed to produce a hash value. Any portion of the main text, or attachments may be hashed.  
The hash acts as a signature in [0052].

determining whether the electronic communication is of a first predetermined category using the one or more signatures generated.

Milliken, [0082], checking hashed portions of a message with known email lists which have been hashed to determine if a message is spam or suspicious.

Milliken failed to disclose hashing the URL extracted from a message.

32. However, Goodman disclosed using the presence of a URL within an email to determine whether an email was spam. Goodman, col. 7, lines 58-63 and col. 13, lines 45-53

33. It would have been obvious to one of ordinary skill in the art at the time of invention that because Goodman detected whether an email was spam based upon the presence of a URL, and because therefore a URL would have been part of an email in Goodman, and because Milliken disclosed any portion of an email may be hashed, that a URL that was part of an email in Milliken would have been hashed.

34. Milliken and Goodman failed to disclose a plurality of databases to store a plurality of signatures of a plurality of known electronic communications of a first predetermined category. Milliken did disclose comparing known signatures of email messages. Milliken failed to disclose the signatures compared were stored in a plurality of databases.

35. However, Knowles did disclose use of multiple databases to compare message content to determine if a message was a reply to another message. Knowles, column

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5, lines 2-4 disclosed the multiple databases of different content, and column 5, lines 53-64 disclosed the querying of multiple databases of email content.

36. It would have been obvious to one of ordinary skill in the art at the time of invention that Milliken's hash signatures would have been storable in a plurality of databases for purposes of data backups and storage of different types of data.

37. In regard to claim 16, Goodman disclosed the system of claim 15, wherein the URLs comprises at least one of a hostname, a domain name, a subsection of a domain relative link, and an Internet Protocol (IP) address. Goodman, col. 7, lines 58-63 and col. 13, lines 45-53. The elements of at least one of a hostname, a domain name, a subsection of a domain relative link, and an Internet Protocol (IP) address are inherently part of the URL as disclosed in Goodman

38. In regard to claim 17, Milliken disclosed the system of claim 15, wherein the operations further comprise selecting the one or more of the plurality of signatures based on a plurality of predetermined criteria. [0068], hash the main text of the body and [0070], hash the attachments of the email. Also see [0050]. The use of hash blocks in [0050] is selecting a signature generated based on a plurality of predetermined criteria.

39. In regard to claim 18, Milliken disclosed the system of claim 15, wherein the operations further comprise performing a predetermined operation on the electronic communication if the electronic communication is determined to be of the first predetermined category. Milliken, [0082], checking hashed portions of a message with

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known email lists which have been hashed to determine if a message is spam or suspicious.

40. In regard to claim 19, Knowles disclosed the system of claim 15, further comprising a database, coupled to the server, to store a plurality of reports from which the plurality of predetermined signatures are generated. Knowles, col. 5, lines 55-58.

41. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Milliken in view of Goodman in view of Knowles as applied to claim 15 above, and further in view of Official Notice.

42. In regard to claim 20, Milliken in view of Goodman in view of Knowles disclosed the system of claim 15. The combined references failed to disclose wherein the plurality of databases are in a remote location from the server. However, Official Notice is taken that databases were commonly stored in remote locations from a server at the time of invention to allow for remote storage of data and for emergency management procedures in case of catastrophic events. It would have been obvious to one of ordinary skill in the art at the time of invention to remotely store databases in the Milliken/Goodman/Knowles combination.

***Conclusion***

43. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- |     |                 |                 |
|-----|-----------------|-----------------|
| 44. | Sobel           | US 7,293,063    |
| 45. | Oliver et al.   | US 7,299,261    |
| 46. | Hong J C et al. | KR 2005024765A  |
| 47. | Cho H G et al.  | KR 2005000015A  |
| 48. | Kissel          | US 7,373,664    |
| 49. | Gordon et al.   | US 6,732,157    |
| 50. | Kirsch          | US 6,546,416    |
| 51. | Shipp           | US 2004/0093384 |
| 52. | Pace et al.     | US 6,460,050    |
| 53. |                 |                 |

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey R. Swearingen whose telephone number is (571)272-3921. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on 571-272-3868. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jeffrey R Swearingen  
Examiner  
Art Unit 2445

/Jeffrey R Swearingen/  
Examiner, Art Unit 2445